

REMARKS

Claims 1 and 3-12 remain in this application.

In the above-referenced Official Action, the Examiner rejected claims 1 and 3-12 under 35 U.S.C. § 103(a) as being unpatentable over BOPPART et al. (U.S. Patent No.6,485,413).

In the present invention, claim 1 includes, inter alia, a driving unit that moves an interferometer unit. The moved interferometer unit includes a beam splitting element that splits a low-coherent beam into two split beam and directs one split beam to an object, a reference optical system that guides an other split beam, a reflector unit that reflects the other split beam guided by the reference optical system, and a light detecting device. Because the interferometer unit is moved as a whole, i.e., all the components in the interferometer unit are moved as one unit, the optical property of the object in the depth direction is measured without changing the reference light optical path length (i.e. a length of a path of the split beam directed to the reflector through reference optical system and the reflected light directed to the light detecting device).

In contrast, BOPPART et al. mentions three types of OCT imaging engines, i.e., the reference-arm scanning type, the frequency tunable optical type, and the optical spectral analysis imaging type (see. e.g. cols. 5, 6 and 9, and Fig. 3). These OCT imaging engines achieve the measurement of the optical property in depth direction of the object by employing

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a mechanically changing reference-arm path length, a frequency tunable optical source, or an optical spectrum analyzer, respectively. In those OCT imaging engines, the interferometer as a whole does not move toward or away from the object to carry out the measurement in the depth direction. For example, in the reference-arm scanning type, the measurement in the depth direction is achieved by mechanically changing the reference-arm path. In other words, the reference light optical path length changes.

BOPPART et al. discloses a driving unit that moves an optical fiber and a lens as a single unit (or relative to each other). The Examiner asserted that it would have been obvious to a person of ordinary skill in the art at the time the invention was made that to interpret that the lens, fibers, mirrors, etc. that are moved by the driving unit of BOPPART et al. are components of the interferometer unit as taught by the present invention. However, even though (some or all of) those components move to provide for “depth ranging information of tissue” as the Examiner noted, BOPPART et al. provides no teaching for moving the entire interferometer unit as recited in Applicants’ claims. In particular, BOPPART et al. contains no disclosure of moving interferometer, just of moving the fiber and/or lens unit. In this regard, the Examiner’s attention is directed to col. 11, lines 12-37.

Further, mere replacement of those movable components with the entire interferometer cannot achieve the combination of features of the present invention as recited in claim 1. Because the system disclosed in BOPPART et al. includes the specific types of

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OCT imaging engines described above, there is no need to move the entire interferometer unit to obtain the optical property in the depth direction. On the other hand, the present invention obtains, by providing a mechanism to move the interferometer unit as a whole, the optical property in the depth direction, without requiring the use either of mechanically changing reference-arm path length, frequency tunable optical source, or the optical spectrum analyzer, as required in BOPPART et al.

Accordingly, since BOPPART et al. does not disclose the combination of the features recited in Applicants' claimed invention, withdrawal of the rejections under 35 U.S.C. §103(a) based on BOPPART et al. is respectfully requested. With regard to claims 3-12, Applicants assert that they are allowable at least because they depend from independent claim 1, which the Applicants have shown to be allowable.

In view of the herein contained remarks, Applicants respectfully request reconsideration and withdrawal of previously asserted rejections set forth in the Official Action of April 25, 2003, together with an indication of the allowability of all pending claims, in due course. Such action is respectfully requested and is believed to be appropriate and proper.

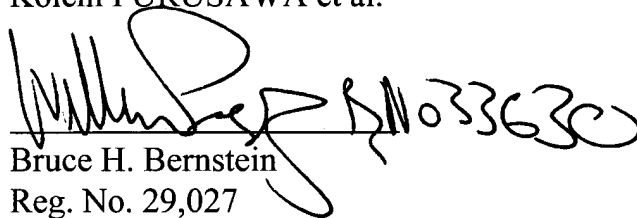
Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be

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considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attached thereto.

Should the Examiner have any questions concerning this Reply or the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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